THE CANADIAN ATLANTIC FISHING INDUSTRY IN THE INTER-WAR PERIOD

A. Gordon DeWolf
Economics 506
May 13, 1974

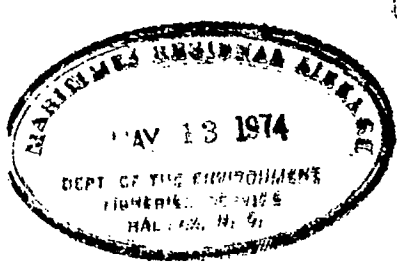

TABLE OF CONTENTS

I. INTRODUCTION ..... Page 1

II. PRODUCTION AND PRICES ..... Page 2

III. EMPLOYMENT ..... Page 6

IV. TARIFFS ..... Page 7

V. TECHNOLOGY ..... Page 9

VI. CONCLUSION ..... Page 13

VII. REFERENCES ..... Page 15

TABLE 1.

Value of Landings, East Coast, Major Species, 1919-39. ($ million) ..... Page 2

I. INTRODUCTION

The Canadian Atlantic fishing industry in the inter-war period suffered a long depression from which it did not recover until mid-way through World War II. In 1918, the last year of the First World War, the value of fish landed in Quebec, New Brunswick, Prince Edward Island and Nova Scotia totalled $18.8 million. Landed value declined to a level of $7.3 million in 1933 and recovered to a level of only $9.9 million, or approximately half of the 1918 value, by 1939 (Urquhart and Buckley, 1965, p. 393). Market values exhibited a similar trend. They reached a record high in 1918 of $27.1 million, declined to a low of $11.9 million in 1933 and increased to $16.9 million by 1939 (D.B.S., 1941, p. 40).

The most obvious question to ask is why did the fishing industry experience such a long depression. There seems to be several reasons. In the first place, traditional attitudes reinforced by the fragmented nature of the industry prevented it from competing effectively with other food industries. Secondly, technological innovations, especially with respect to catching fish, were prohibited because of a fear of the effect of their efficiency on the established fishery and fishing methods. Thirdly, the industry was slow in adjusting to new market opportunities and, instead, attempted to devise methods to improve markets for their existing product lines. Fourthly, tariffs and external economic conditions generally worked against the fishing industry rather than in its favour. Finally, government clung to the concept of free enterprise as providing the best long-run solution when,

.../2

clearly, programs to assist the industry in converting from traditional products and technology were called for.

II. PRODUCTION AND PRICES

Perhaps even more distinctly than today, the fishing industry in the inter-war period was divided into an inshore and offshore sector. The offshore sector was centered at Lunenburg but there were also offshore ports at North Sydney, Canso, Halifax, Shelburne, Lockeport, Yarmouth, Pubnico, and Digby. The fisheries in the remainder of Nova Scotia, New Brunswick, Prince Edward Island and Quebec were basically inshore.

Two fishery species dominated the fishing industry -- cod, the offshore fishery and lobsters, the inshore fishery. Other species, such as haddock, flatfishes, hake, cusk, herring, mackerel, salmon, oysters, clams, scallops and so on were captured and marketed but the fortunes of the industry were determined very much by the markets for cod and lobsters. The value of landings of the major east coast species, from 1919 to 1939, are given below in Table 1.

TABLE 1. Value of Landings, East Coast, Major Species, 1919-39.
($ million)

	Cod	Haddock	Lobsters	Herring[a]	Scallops	Total	Total all Species
1919	8.1	1.4	3.3	1.1	0.1	14.0	18.5
1924	4.0	0.6	2.8	1.2	0.1	8.7	12.2
1929	4.0	1.1	3.8	0.1	1.1	10.1	13.7
1934	2.2	0.5	3.2	0.8	0.2	6.9	9.3
1939	2.0	0.7	2.9	1.1	0.1	6.8	9.9

[a] Includes sardines

Source: Urquhart and Buckley, pp. 393 and 395.

East coast cod landings peaked in 1886 when

.../3

324 million pounds were landed (Urquhart and Buckley, 1965, p. 394). Landings, although lower than their 1886 level, held up fairly well until 1911, but declined thereafter to a level of 143 million pounds in 1932. The decline in landings paralleled the decline of the salt-fish industry which, according to Grant (1934, p. 17) was the result of six factors: (1) a change in transportation methods from sail to stream which made it difficult for sailing vessels to obtain return cargoes, discouraged direct shipping and finally brought about the disappearance of the schooner as a fishing vessel in various countries; (2) the rise of the sugar-beet industry in Europe which lessened the purchasing power of cane sugar producing countries (West Indies) for imports; (3) effectiveness of tariffs in restricting markets; (4) opportunities for employment in other branches of the fishing industry, in other industries, and in the United States; (5) loss of domestic markets for dried cod following development of refrigeration which increased consumption of meat and increased the consumption of fresh fish; and (6) competition from foreign countries producing salt-cod. Innis (1954, p. 426) includes the abolition of slavery in the Spanish colonies in 1880 and the increase in duties in Puerto Rico and Cuba after their release from Spain as additional reasons for the decline of the dried-fish and pickled-fish industry.

The post World War I world-wide depression dealt a blow to the dried-fish industry of the Atlantic Provinces from which it never recovered. Prices for Lunenburg dried cod decreased from $12.65 per quintal in 1919 to $6.40 per quintal in 1921 (Grant, 1934, p. 31). With the reorganization of the European fishing industry after the war, competition in established markets became severe, especially competition from Norway in 1922 and

from other European countries shortly after. Traditionally, Atlantic Canada exported dried fish to the West Indies and South American countries while Newfoundland exported to Europe. However, as European countries supplied increasingly their own demand, Newfoundland began competing with Canada in the latter's traditional markets. Britain also began competing strongly in the West Indies market after depreciation of the pound in 1931. During the 1930's both Iceland and Norway exported increasing amounts of dried-fish to the West Indies and South America. A particular problem with the dried-fish export industry was the type of product. Lunenburg, which produced approximately 50% of the dried-fish from Nova Scotia (by far the largest dried-fish producing province), put up a heavy-cure which was suitable and acceptable to the West Indies but was not acceptable to the United States or European nations where green-salted and boneless-salted-dried fish was preferred. As a consequence, Lunenburg was not able to take advantage of other markets. Between 1920 and 1939 the amount of groundfish salted in eastern Canada declined from 223 million pounds to 126 million pounds (Bates, 1944, p. 29). Export prices of dried cod declined from $13.20 per 100 pounds in 1919 to $4.89 in 1933 and recovered only slightly by 1939 to $5.41 (Bates, 1944, p. 55). Export prices of other types of dried fish declined by similar amounts.

The decline of the dried-fish trade had the effect of increasing the amount of fresh fish sold. Whereas in 1920 and 1929, 80% and 73%, respectively, of the Canadian groundfish catch was salted, in 1939 the proportion salted had declined to 54% (Bates, 1944, p. 68). The proportion of groundfish sold as fresh or frozen increased from 9% in 1920 to 17% in 1929 and to 34% by 1939 (Bates, 1944, p. 68). In the decade before 1900,

.../5

there was a small fresh fish industry centered at Yarmouth, Digby and Pubnico from where fresh fish was shipped to Montreal via Boston and Gloucester (Grant, 1934, p. 83). However, the fresh fish industry did not expand until about 1908. One of the major reasons for its expansion was a 33 1/3 % subsidy on shipping charges of fresh fish from the Maritimes to central Canada which was paid from 1907 to 1918. The subsidies, over the 11 year period which they were paid, amounted to over $300,000 or approximately $28,000 per year (Dept. of Naval Service, 1918, p. 15). Other factors in the development of the fresh and frozen fish trade was the use of ice as a preservative, the development of artificial refrigeration (Grant, 1934, p. 29), the development in the late 1920's of the quick freezing process by Clarence Birdseye and Dr. Harden F. Taylor, improvements in storage, transportation, and distribution, and the practice of filleting at the processing level rather than at the retail level after 1921 (Watt, 1963, p. 22). Initially, the major fresh and frozen fish markets were domestic but the market switched increasingly during the 1920's and 30's to the United States. Export prices of fresh fish did not decline as much as they did for dried fish. The price of fresh cod decreased from $5.18 per hundred pounds in 1918 to $2.56 in 1932 and remained at about that level to 1939 (Bates, 1944, p. 55).

Although groundfish was important to the inshore fisheries of Atlantic Canada, particularly for production into dried fish along the Atlantic coast of Nova Scotia, the Gaspé and Northeastern New Brunswick, lobsters dominated the inshore fishery. Canadian lobster landings in 1918 stood at approximately 30 million pounds, a decrease of approximately 70 million pounds from the peak landings of 1886 (Wilder, 1965, p. 21). The industry was divided roughly into two sections. The Bay of Fundy and Atlantic

.../6

coast sold live lobsters to the U.S. market while in the Gulf of St. Lawrence lobsters were canned for sale largely in the United Kingdom. After 1918, landings increased, particularly during the depression possibly as a result of an increase in fishing effort as a consequence of unemployed workers returning to the Maritimes to engage in the resource industries. Unlike the prices of most other fishery products, the price of both live and canned lobsters increased from 1918 to 1928, declined to slightly below their 1918 level by 1934 and increased to close to the 1918 level by 1939 (Bates, 1944, p. 55). This was about the only sector of the fishing industry which managed to hold its own.

III. EMPLOYMENT

From 1895 to 1915 the total number of persons employed in fishing and fish processing remained relatively constant at a level of about 70,000. Of this total, approximately 10,000 were employed in processing and 60,000 in fishing. After 1915 the number of persons employed in fish processing declined steadily to 1928 when there were 8.3 thousand plant workers. From 1929 to 1939 the number of workers ranged from 8.4 to 9.0 thousand. The number of fishermen declined sharply between 1915 and 1924. By 1924, there were only 36,000 fishermen in the Atlantic Provinces -- a decrease of nearly 25,000 in 9 years. The large decrease resulted from enlistments during the War, low returns after 1918, higher returns in the New England offshore fishery which attracted fishermen from the Atlantic Coast, the rapid development of other industries in the Atlantic region such as coal and steel, and emigration to central Canada and the United States were opportunities for employment and rates of pay were higher than in the Atlantic Provinces. From 1925 to 1929 the number of

.../7

fishermen increased steadily to a level of 39.9 thousand and then increased sharply during the depression to a level of 46.4 thousand (1932). After 1932, the rate of increase slowed but the number of persons employed in fishing remained at a high level (approximately 48,000) until the outbreak of World War II.

The fisheries have frequently been considered as an employer of residual labour, that is, when employment opportunities elsewhere are good the number of fishermen will be low and, conversely, when employment conditions outside of the fishing industry are poor, there will be a large number of fishermen, even though returns in fishing may be low. The inter-war period was marked by wide fluctuations in unemployment and thus presents a good period by which to test this hypothesis. The Canadian unemployment rate declined from 5.6% in 1921 to 1.7% in 1928, increased to 14.5% in 1934 and then decreased to 11.4% by 1939. (Calculated from Urquhart and Buckley 1965, p. 61). The coefficient of determination between the unemployment rate (independent variable) and the number of fishermen (dependent variable), using ordinary least squares, is 0.67 which is significant at the 5% level. Although changes in the number of fishermen cannot be attributed exclusively to economic conditions outside of the fishing industry, they certainly appear to have been significant in the period under consideration.

IV. TARIFFS

There were two sets of tariffs which affected the Canadian Atlantic fishing industry -- those imposed by the United States and those imposed by the West Indies and South America. Tariffs on Canadian fish entering the United States were often negotiated along with reciprocal

.../8

fishing and other privileges. For instance, in 1914, in exchange for United States fishing privileges in Canadian waters, the United States removed its duties on fresh and unprocessed fish. Although the U.S. removed its duties, it continued to prohibit Canadian vessels from landing their catch at U.S. ports. However, because of the special circumstances arising from the war, Canadian fishing vessels were permitted to go directly to U.S. ports to unload their catch in 1918. This agreement terminated in 1921 and in 1922 the U.S. applied duties to Canadian fish under the Fordney-McCumber tariff. In 1923, Canada discontinued the privilege extended to United States vessels of fishing in Canadian waters under the so-called modus vivendi and the terms of the Treaty of 1818 which extended fishing privileges to U.S. vessels in the northern Gulf of St. Lawrence with permission to land for repairs, to obtain supplies, and to secure shelter, were reverted to. The fishing privileges and duties remained in effect until 1930 when under the Hawley-Smoot tariff high duties were placed on Canadian fish. The duties ranged from 3/4¢ per pound to 3¢ per pound with most of them in the range of 2¢ - 3¢. Whereas in the 1920's, duties amounted to approximately 25% of the value of exports, during the 1930's, they amounted to approximately 35% (Bates, 1944, p. 40). Unquestionably, the U.S. duties had an adverse effect on the Canadian Atlantic fishing industry, especially during the 1930's when a free trade policy may have helped in alleviating the world-wide depression. The duties had the effect of limiting the market, especially for fresh and frozen fish, to Canada where the demand for fish products was not very great. In order to sell their products, fish companies continually cut prices at both the wholesale and primary level with the result that profit margins and returns to those engaged in fishing were continually eroded.

.../9

Under the Tariff Act of 1907, a 20% preference was extended by most West Indies countries to Canadian exports of selected products, including fish. Some countries (Jamaica, Bahamas, Bermuda and British Honduras), however, refused to enter into the reciprocal trade agreements. In 1920, the Tariff Act of 1907 was replaced and preferential tariffs of 25% to 50% were given Canadian goods. In 1925, a new agreement was concluded and preferences were again increased. According to Innis, (1954, p. 431), with the transfer of purchasing power from Cuba and the Dominican Republic to empire countries, because of the preferences on sugar, the former countries increased their tariffs in retaliation and Canadian exports of dried fish declined. As well, Jamaica, the principal market for dried-fish, did not always enter the reciprocal trade agreements, with the result that Canadian exports of dried fish to that country decreased. After 1931, with the depreciation of the pound, dried fish from Britain was relatively cheaper than dried fish from Canada which contributed to the loss of the Canadian export market in the West Indies. Although West Indies preferences should have been a benefit to Canadian dried-fish exports, they apparently did not have the desired effect because of exogenous factors.

V. TECHNOLOGY

There were several important technological changes in the fishing industry during the inter-war period. However, the changes that were made have tended to be overshadowed by the controversy surrounding the use of trawlers in the offshore fishery. The inshore fishery was revolutionized, especially in the years immediately after World War I, by the introduction of the internal-combustion engine which quickly replaced sail and row as the major source of motive power. This innovation permitted

.../10

fishermen to travel to more distant fishing grounds and to travel within fishing grounds much more quickly. It had the undesirable effect, particularly in the lobster fishery, of contributing to overcapitalization. According to the MacLean Commission (Royal Commission Report, 1928, p. 10) approximately three times as many traps were required in 1927 to catch 100 pounds of lobsters as were required ten years before. Generally, fishing methods in the inshore fishery changed very little.

With regard to processing, the introduction of quick freezing methods and improvements in storage, transportation and distribution during the late 1920's and 1930's improved considerably the quality and consumer acceptability of frozen fish in central Canadian markets. With the introduction of filleting at the processing rather than at the retailing level fish wates were used for meal. The first plant to process fish wastes was constructed at Halifax in 1925 and a few years later one was constructed at Canso. The dried-fish industry in the inter-war period switched from individual drying on flakes to drying in plants, especially after the invention and introduction of the mechanical dryer which cut drastically the amount of time required for drying and improved the quality and consistency of the product.

These and other developments, however, have been overshadowed by the trawler controversy. The first trawler was purchased from England by the National Fish Company of Halifax and sold in 1897 to a firm at Canso after an unsuccessful operation (Grant, 1934, p. 92). A second trawler was brought from England to Canso in 1907 and operated by the National Fish Company but it was sold in 1910 to the Maritime Fish Corporation. During the War,

.../11

trawlers operated from Canso, Halifax, and later Digby. In 1918, four wooden trawlers of approximately 150 feet in length were built at Shelburne and LaHave. One was converted to a coastal vessel before completion while the other three had all sunk by 1920. After the war, the number of trawlers increased and in 1926 there were 11 in operation. The number declined, however, to six by 1928.

In 1928, the Royal Commission investigating the fisheries of the Maritime Provinces and the Magdalen Islands submitted its report. Although the commissioners were unanimous in their recommendations regarding all other aspects of the fisheries they were split regarding the use of trawlers with A.K. MacLean, Chairman of the Commission, submitting a minority report. According to the majority report, fishermen objected to trawlers for seven reasons: (1) they destroyed haddock and cod spawn; (2) they destroyed the feeding grounds of fish; (3) they took large quantities of immature and unmarketable fish; (4) they were foreign-owned and foreign-manned; (5) they destroyed fisherman's gear; (6) they sold inferior fish which discouraged consumption and ; (7) they were responsible for overproduction and glutting the market which resulted in low prices to fishermen and destroyed a way of life and led to the abandonment of fishing ports. As Gordon (1951, p. 124) has pointed out, the real issue was one of market competition between the line fishermen and trawler owners. According to the majority report, "It is alleged that the steam-trawler, with its vast mass production, has forced the shore fisherman out of his customary rights and has deprived him of a market, other than at an unremunerative price" and "The problem seems to be largely

.../12

one of choice between the steam-trawler and the shore-fishermen. One or the other must remain, and one or the other must go." (Report of Royal Commission, 1928, p. 97). The commissions chose for the steam-trawlers to go and recommended a complete prohibition of their use. A. K. MacLean, on the other hand, recommended the continued use of trawlers. According to him "While it is regrettably true that there has been a decline in the total number of men engaged in the shore fisheries, it is difficult to say to what extent this is attributable to the trawler, if at all, without a very careful and detailed canvass of the affected ports and the ascertainment of the exact cause." (p. 110) and "When analyzed, all the various objections to trawlers appear to have their origin in the economic factor of competition, . . ." (p. 111).

The government adopted a bastardized method for solving the trawler controversy which had the effect of making them less profitable but still permitted their use. In 1929, a tax of 1¢ per pound was put on fish landed by foreign built trawlers and 2/3¢ per pound on fish landed by Canadian built trawlers. In 1931, the Maritime Fish Corporation challenged the legality of the tax which was declared ultra vires. However, immediately after this decision, the number of trawlers was frozen by licencing regulations. At this time, there were six trawlers, all operating out of Halifax. Two years later, under pressure from shore fishermen and the Province of Nova Scotia, the federal government licenced only 4 trawlers but from then until 1944, the most that operated in any year was three. Trawler landings from 1932-1939 averaged 19 million pounds per year (D.B.S., several issues). They had been as high as 40 million pounds in 1927 (Royal Commission Report, 1928, p. 113).

.../13

The action taken by the Canadian government regarding the use of trawlers has generally been condemned (Grant, 1934, p. 94; Watt, 1963, p. 29; Bates, 1944, p. 44). The major objections to the decision are that it prevented innovation not only with regard to trawling but also other fishing methods such as Danish seining and long-lining, it weakened the competitive nature of the fishing industry vis-a-vis other food industries by making it labour rather than capital intensive, and that it prevented a steady supply of fresh fish by limiting the supply to schooners which landed their catch between May and November. From the data available, it appears that limiting the number of trawlers had no effect on increasing prices for the obvious reason that fishermen and others were looking at the wrong causes for low prices. It is unlikely, on the other hand, that permitting greater use of trawlers would have had any significant improvement on the fishing industry during the 1930's as conditions existing in the industry were caused largely by external economic conditions. However, the fishing industry during World War II and after would have been in a much better competitive position if an expansion in the number of trawlers had been permitted. It was not until the 1950's that the offshore fishing industry began to introduce the technological changes that were required to bring it out of the 19th century.

VI. CONCLUSION

The fishing industry during the 1920's and 1930's was in a very depressed state. However, the 20's and 30's in many respects represented a watershed. Excepting the introduction of trawlers, technological innovations in fishing and, in particular, in processing were introduced which permitted the industry to take advantage of improved

.../14

markets during the 1940's and 1950's. Although the industry was slow in reacting to changes in market conditions, there was a definite switch from dried-fish to fresh and frozen fish, the benefits of which were not realized until after World War II. Tariffs, generally speaking, worked to the detriment of the fishing industry and their effects, in terms of final processing of fish products, are still felt today. The influx of fishermen as a result of depressed economic conditions in the non-fishing sectors decreased the average level of returns to labour. Generally, a casual view of the fishing industry during the inter-war period would probably lead one to the conclusion that it was stagnant when, in effect, major structural changes were taking place. One of the major changes, which was not discussed above, was the formation of fishing companies and a switch from individual fish processing to company processing. This and other changes represented a significant break so that in 1939 the fishing industry was substantially different then it was in 1918.

REFERENCES

Bates, Stewart. 1944. Report on the Canadian Atlantic sea-Fishery. Halifax, King's Printer.

Canada. Dept. of Naval Service. 1918. Fifty-first annual report of the Fisheries Branch, 1917. Ottawa, King's Printer.

Canada. Dom. Bur. Stats. Various issues. Fisheries Statistics of Canada. Ottawa, King's Printer.

Gordon, H. Scott. 1951. The trawler controversy in the United Kingdom and Canada. Dalhousie Review, Vol. 31, No. 2, p. 117-127.

Grant, Ruth Fulton. 1934. The Canadian Atlantic hishery. Toronto, The Ryerson Press.

Innis, Harold A. 1954. The cod fisheries: the history of an international economy. Rev. ed. Toronto, Univ. of Toronto Press.

Royal Commission investigating the fisheries of the Maritime Provinces and Magdalen Islands. 1928. Report. Ottawa, King's Printer.

Urquhart, M.C. and K.A.H. Buckley. eds. 1965. Historical tatistics of Canada. Toronto, The MacMillan Co.

Watt, John W. 1963. A brief review of the fisheries of Nova Scotia. Halifax, Dept. of Trade and Industry.

Wilder, D. G. 1965. Lobster conservation in Canada. Cons. Perm. Int. pour l'Explor. de la Mer, Rapports et Procès Verbaux, CLVI, p. 21-29.